

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Recommendations of the Independent Panel)	
Reviewing the Impact of Hurricane Katrina on)	EB Docket No. 06-119
Communications Networks)	

**JOINT COMMENTS OF THE TEXAS COMMISSION ON STATE EMERGENCY
COMMUNICATIONS AND THE TEXAS 9-1-1 ALLIANCE**

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The Texas Commission on State Emergency Communications¹ and the Texas 9-1-1 Alliance² (collectively referred to as the “Texas 9-1-1 Entities”) respectfully submit these joint comments to the Federal Communications Commission’s (“FCC”) Notice of Proposed Rulemaking (“NPRM”)³ in the above-referenced docket. The purpose of this filing is to comment on action that the FCC can take with respect to the Panel’s⁴ 9-1-1 related recommendations in the Final Report⁵ to enhance the resiliency and restoration of the 9-1-1 system. The Texas 9-1-1 Entities commend the Panel for its comprehensive review of Katrina’s impact on communications networks and for making sound recommendations to promote and ensure a more effective and reliable system in the future.

¹ The Texas Commission on State Emergency Communications (“CSEC”) is a state agency created pursuant to Texas Health and Safety Code Ann. Chapter 771, and is the state authority on emergency communications. CSEC oversees the implementation of 9-1-1 service provided by Texas’ 24 Councils of Government, which serve approximately two-thirds of the geographic area of Texas and one-third of its population.

² The Texas 9-1-1 Alliance is an interlocal cooperation entity composed of 24 Texas Emergency Communication Districts with E9-1-1 service and public safety responsibility for approximately 50% of the population of Texas. These districts were created pursuant to Texas Health and Safety Code Chapter 772.

³ *In the Matter of Recommendations of the Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks*, Notice of Proposed Rulemaking, EB Docket No. 06-119, FCC 06-83 (rel. June 19, 2006).

⁴ Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks (the “Panel”).

⁵ Independent Panel Report and Recommendations to the Federal Communications Commission (June 12, 2006) (“Independent Panel Report”).

I.

Summary of Comments

The Texas 9-1-1 Entities believe that two of the Panel's 9-1-1 recommendations can be enhanced further in order to achieve a more robust and resilient 9-1-1 system. First, the Panel's recommendation that service providers consider deploying dual active 9-1-1 selective router architectures as a means for eliminating single points of failure is too narrow and limiting. The public would be better served by expanding and focusing on the evaluation and deployment of Internet Protocol ("IP") and Next Generation network alternatives to strengthen the E9-1-1 infrastructure and architecture. Second, while the Texas 9-1-1 Entities support the need for greater back-up PSAPs, back-up plans, and additional back-up alternatives, the Texas 9-1-1 Entities respectfully submit that the 200 mile designation for the back-up PSAP is not the best way to achieve the desired needed results and back-up outcomes.

II.

Comments

9-1-1 is but one part of the emergency preparedness and response system. It is nevertheless critical for 9-1-1 to be included in these types of efforts and to be addressed and integrated properly to protect the public. The Texas 9-1-1 Entities believe that two of the Panel's 9-1-1 recommendations can be enhanced further to achieve the result of a more robust and resilient 9-1-1 system. First, the Panel's recommendation that service providers consider deploying dual active 9-1-1 selective router architectures as a means of eliminating single points of failure⁶ should be viewed as an interim, stop-gap measure due to the inherent limitations of the existing 9-1-1 infrastructure.

⁶ Independent Panel Report at 39 (recommendation based on NRIC VII Best Practice Recommendation 7-7-0571).

The existing 9-1-1 infrastructure is based on reliable, but decades-old, technology that relies upon selective routers and dedicated trunks. The Texas 9-1-1 Entities respectfully submit that going forward the FCC should facilitate the consideration and deployment of emerging IP technology as a better means of improving the 9-1-1 system. While NRIC VII Focus Group 1C readopted the dual active 9-1-1 selective router as an effective best practice, it noted that it might not help or effectively mitigate the problem:

[T]he effectiveness of redundant routers and alternate PSAPs in mitigating 9-1-1 outages is dependent upon the location of the failed elements in the network. For instance, 22% of the 9-1-1 outages analyzed were caused by cable damage, which would prohibit a caller from reaching 9-1-1. This cannot be addressed between the end serving office and the customer via network design or redundant selective routers; it can only be addressed by the implementation of Best Practices (e.g., cable locates before digging).

It is therefore imperative to analyze the cause of problems before deploying a solution. Outages are not necessarily prevented by adding more network elements and/or diversity, as this might not mitigate the root cause of the outages.⁷

Focus Group 1C also recognized the “eminence of IP based E9-1-1” as a factor for consideration in providing redundant selective routers.⁸

The potential benefits of IP and the migratory approach to an IP and Next Generation network were also recognized by NRIC VII Focus Group 1B, which was charged with consideration of long-term issues for 9-1-1 and emergency services. With regard to IP and emergency preparedness type issues, Focus Group 1B noted:

[A]n IP E9-1-1 network would create opportunities to automatically share information between PSAPs and other regional or national emergency response facilitating entities (e.g., local and state transportation agencies). By programming the system with certain thresholds or triggers, emergency call information could automatically be sent to state Emergency Management agencies or, if the incident

⁷ NRIC VII Focus Group 1C, *Analysis of the Effectiveness of Best Practices Aimed at E9-1-1 and Public Safety, Final Report* (December 2005) at 47.

⁸ *Id.* at 41.

met certain criteria, it could simultaneously be routed to national emergency response functions, such as FEMA or similar agencies. These notifications would save the call taker time through automation while providing agencies outside the PSAP with the earliest possible warning that their assistance or action might be needed. These new capabilities would enhance the effectiveness of existing regional cooperation agreements. They would also enable a closer tie between national entities (FEMA, DHS, DoD, etc.) and local responders. Although these external agencies could be “added in” to the information flow in this manner it would be impractical for them to assume any of the traditional PSAP functions, which are largely based upon local knowledge of the geography and immediately available resources.

Finally, by moving to an IP-based E9-1-1 network, PSAPs will be able to more readily upgrade their systems as new capabilities and functionalities are deployed. Further, PSAPs could choose to share centralized IP servers rather than paying for locally maintained equipment. Thus, when upgrades are necessary the cost would be shared by all of the users of the central server, leaving the PSAP with only the cost of upgrading their local workstations as they see the need to do so.⁹

While interconnecting 9-1-1 selective routers may be a beneficial migratory step, IP and Next Generation network deployments will likely offer the most effective long-term solutions. For example, in Texas there are currently some projects directed toward tandem-to-PSAP diversity, which will provide PSAP interoperability across a PSAP enterprise IP network. This will allow station to station transfers and data connectivity via an IP enabled network among PSAPs regardless of the serving Local Exchange Company 9-1-1 selective router. IP connectivity to all these PSAPs will allow the sharing of current data applications (such as mapping, mapping updates, management information system, other vertical services) and will position these PSAPs to leverage this data infrastructure for future applications. In this regard, the Texas 9-1-1 Entities concur with the recommendation of NRIC VII Focus Group 1B, which

⁹ NRIC VII Focus Group 1B, *Long Term Issues for Emergency/E9-1-1 Services, Report 4* (October 19, 2005) at p. 19.

“recommends that policy and funding agencies foster rapid completion of the specifications for and the development of IP-based PSAP systems and services.”¹⁰

In sum, the Texas 9-1-1 Entities submit that rather than focusing the FCC’s attention and action on the dual tandem option, the public would be better served by expanding and focusing on the evaluation and deployment of IP and Next Generation IP alternatives. Only by incorporating such modern technology into the E9-1-1 infrastructure and architecture will the emergency system truly become more robust and resilient.

The second area where the Texas 9-1-1 Entities believe that the Panel’s recommendations can be enhanced is in regard to the recommendation that there be a designated secondary back-up PSAP that is more than 200 miles away.¹¹ While the Texas 9-1-1 Entities support the need for greater back-up PSAPs, back-up plans, and additional back-up alternatives, the 200 mile designation for the secondary back-up PSAP appears to some extent to be arbitrary and may not necessarily be the best way to achieve the desired results and back-up outcomes. The Texas 9-1-1 Entities submit that back-up plans be developed and implemented not solely on the basis of geographic remoteness but also on factors such as probability of a disaster simultaneously affecting both the primary and secondary back-up PSAP and the size and level of technology used at the primary and secondary back. Nevertheless, to the extent that LATA boundaries are in an impediment to PSAP back-up plans and addressing other 9-1-1 emergency related needs, the Texas 9-1-1 Entities support the Panel’s call to eliminate such obstacles in all such situations.

¹⁰ Id. at p. 51.

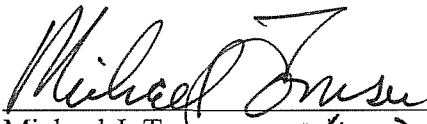
¹¹ Independent Panel Report at 39.

III.

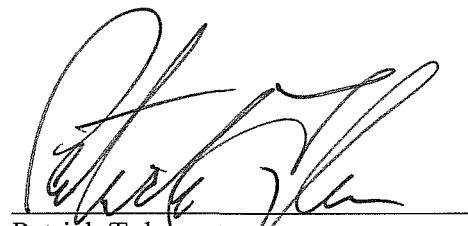
Conclusion

The Panel's report clearly highlighted weaknesses in the public safety and commercial communications networks to handle a prolonged disaster, especially one accompanied by flooding and loss of electric power. The Texas 9-1-1 Entities support the Panel's recommendations, but urge the FCC to consider the deployment of dual active 9-1-1 selective routers only as an interim measure with the long-term focus being on implementing IP-based and Next Generation public safety networks. The Texas 9-1-1 Entities also support eliminating LATA boundary restrictions to creating geographically diverse back-up PSAPs and addressing other 9-1-1 emergency related needs, but recommends that the sites of such back-up PSAPs not be solely driven by a mileage factor.

Respectfully submitted,


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